

CLAIMS

What is claimed is:

1. An ice maker comprising:
a cooling and heating apparatus to absorb heat on one side of the apparatus's structure, and then distribute the heat on the opposite side of apparatus's structure;
at least one receptacle to receive water for freezing, wherein the receptacle is mechanically inverted to release the ice;
wherein the receptacle is located above the heat absorbing side of the apparatus when water is being frozen; and
wherein the receptacle is located below the heat distributing side when the ice is released.
2. The ice maker according to claim 1, wherein the cooling and heating apparatus comprises a Peltier element which absorbs heat from the heat absorbing side and radiates heat to the heat distributing side.
3. The ice maker according to claim 2, further comprising radiant pins which are provided on the heat absorbing side and the heat radiating side of the Peltier element so as to absorb and radiate the heat efficiently.
4. The ice maker according to claim 1, wherein the receptacle is joined to one or more other like receptacles to form a conveyor.
5. The ice maker according to claim 4, further comprising a driving device;
wherein the driving device propels the conveyor.
6. The ice maker according to claim 5, further comprising at least one driving pulley;
wherein the driving device is coupled to the at least one driving pulley that propels the conveyor.
7. The ice maker according to claim 6, wherein the driving pulley is provided with portions making interlocking connections with the receptacles.

8. The ice maker according to claim 7, wherein the receptacles are provided with portions making interlocking connections with the driving pulley.

9. The ice maker according to claim 8, further comprising at least one following pulley;

wherein the conveyor is also coupled to the at least one following pulley which provides support for the conveyor.

10. The ice maker according to claim 9, further comprising a supporting bracket; wherein the driving pulley and following pulley are separated at a predetermined distance by the supporting bracket.

11. The ice maker according to claim 10, wherein the cooling and heating apparatus is disposed within the supporting bracket.

12. The ice maker according to claim 1, wherein the receptacle is made of metallic material so as to absorb and radiate heat easily.

13. The ice maker according to claim 12, wherein the metallic material is stainless steel.

14. The ice maker according to claim 1, further comprising a water feed pipe; wherein the water is delivered to the receptacle by the water feed pipe.

15. A method for making ice in an ice maker, the method comprising:
placing at least one receptacle that receives water for freezing over a cooling and heating apparatus, the apparatus absorbing heat on one side of the apparatus's structure and then distributing the heat on the opposite side of the apparatus's structure, wherein the apparatus absorbs heat from the receptacle to assist in making the ice; and
inverting and placing the receptacle under the apparatus, wherein the apparatus radiates heat to help remove the ice from the receptacle.

16. The method according to claim 15, wherein the cooling and heating apparatus is equipped with a Peltier element which absorbs heat from the heat absorbing side and radiates heat to the heat distributing side.

17. The method according to claim 16, wherein radiant pins are provided on the upper part and the lower part of the Peltier element so as to absorb and radiate heat efficiently.

18. The method according to claim 15, wherein the receptacle is joined to one or more other like receptacles to form a conveyor.

19. The method according to claim 18, wherein the conveyor is equipped with a driving device that propels the conveyor.

20. The method according to claim 19, wherein the driving device is coupled to at least one driving pulley that propels the conveyor.

21. The method according to claim 20, wherein the driving pulley is provided with portions making interlocking connections with the receptacles.

22. The method according to claim 21, wherein the receptacles are provided with portions making interlocking connections with the driving pulley.

23. The method according to claim 22, wherein the conveyor is also coupled to at least one following pulley which provides support for the conveyor.

24. The method according to claim 23, wherein the driving pulley and following pulley are separated at a predetermined distance by a supporting bracket.

25. The method according to claim 24, wherein the cooling and heating apparatus is disposed within the supporting bracket.

26. The method according to claim 15, wherein the receptacle is made of metallic material so as to absorb and radiate heat easily.

27. The method according to claim 26, wherein the metallic material is stainless steel.

28. The method according to claim 15, wherein the water is delivered to the receptacle by a water feed pipe.